What is claimed is:

1.   An image processing apparatus, comprising:

a first sensor having a plurality of reading elements
arranged in the primary scanning direction;

a second sensor having a plurality of reading elements
arranged in the primary scanning direction, the second
sensor being disposed a predetermined lines apart from the
first sensor in the secondary scanning direction;

an integral correction portion for correcting data
output time difference due to the position difference
between the first and the second sensors by a line unit;
and

a fractional correction portion for correcting data
output time difference due to the position difference
between the first and the second sensors by a unit less than
one line.

2.   The image processing apparatus according to claim 1,
further comprising:

changing means for changing a relative speed of the
first and the second sensors moving relatively to an
original image in accordance with a scaling ratio; and

a control portion for enabling the fractional
correction portion when a fraction is generated adding to
integral lines of output time difference between the data
from the first sensor and the data from the second sensor
after changing the relative speed of the first and the
second sensors to an original image.

3.   The image processing apparatus according to claim 2,
further comprising a third sensor having a plurality of

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reading elements arranged in the primary scanning direction, the third sensor being disposed a predetermined lines apart from the first sensor in the secondary scanning direction.

4. The image processing apparatus according to claim 3,
5 wherein the first, the second and the third sensors read red, green and blue components of an original image, respectively.

5. The image processing apparatus according to claim 4, wherein the first, the second and the third sensors make up a contraction type color CCD sensor.

10 6. The image processing apparatus according to claim 1, wherein a black fine line detection portion is provided for detecting a black fine line included in image data, and the fractional correction portion is enabled if the width of the black fine line is greater than a predetermined value,
15 while the fractional correction portion is disabled if the width of the black fine line is equal to or less than a predetermined value on the basis of the output signal of the black fine line detection portion.

7. An image processing apparatus, comprising:
20 a sensor disposed linearly in the primary scanning direction, the sensor reading an original image after decomposing the image into plural colors;

an optical system for projecting light from the original image onto the sensor; and
25 a correction portion for correcting a misregistration of the colors in the primary scanning direction due to a chromatic aberration of the optical system, the correction portion performing the correction for each of plural areas divided in the primary scanning direction.
30 8. The image processing apparatus according to claim 7,

wherein the sensor includes line sensors for red, green and blue colors arranged by a predetermined pitch in the secondary scanning direction.

9.   The image processing apparatus according to claim 7, wherein a predetermined test image is read for each of machines that are equipped with the image processing apparatus so that information for the correction for each area is obtained from the image data.

10.   The image processing apparatus according to claim 9, wherein a ladder chart in which black lines are arranged by a predetermined pitch in the primary scanning direction as the test image, a position shift among barycenters of the obtained red, green and blue image data is calculated, and boundaries of the areas and correction coefficients for the areas are obtained as the information for correction for each area in accordance with a distribution of the position shift among the barycenters of the red, green and blue image data in the primary scanning direction.

11.   An image processing apparatus for performing a correction process of color image data obtained by an image sensor having a structure in which a plurality of element arrays are arranged longitudinal in the primary scanning direction in parallel by a predetermined pitch in the secondary scanning direction, the apparatus comprising:

a plurality of interline correction means having reference colors for correction different from each other, for correcting a misregistration among the element arrays of the image sensor in the secondary scanning direction; and

correction output means for outputting the image data corrected in accordance with the image data output by the

plural interline correction means.

12. An image processing apparatus for performing a correction process of red, green and blue image data obtained by an image sensor including red, green and blue element arrays arranged longitudinal in the primary scanning direction and arranged in parallel by a predetermined pitch in the secondary scanning direction, the apparatus comprising:

a plurality of interline correction means for correcting a misregistration among the red, green and blue element arrays of the image sensor in the secondary scanning direction, each interline correction means using one of red, green and blue colors as a reference color for correction; and

correction output means for outputting an average of the image data for each color output by the plural interline correction means, as the corrected image data.

13. A color image processing apparatus, comprising;

a fine line decision portion for deciding whether the present pixel is on the fine line or not for plural image data having different wavelength components read by reading means;

a density correction portion for performing correction increasing a density of image data of the corresponding wavelength component in the present pixel when the present pixel is on a fine line on the basis of the signal from the fine line decision portion; and

a chroma decision portion for deciding whether the present pixel is a chromatic color or an achromatic color using the output value of the density correction portion.

14. The color image processing apparatus according to claim 13, wherein the fine line decision portion detects one- or two-dot width fine lines with a high density.

15. The color image processing apparatus according to claim 13, further comprising a print image data generation portion for generating image data for printing using the output value of the density correction portion.

16. The color image processing apparatus according to claim 13, wherein the density correction portion performs correction increasing a density of image data of wavelength components except the wavelength component having the best MTF characteristics.

17. The color image processing apparatus according to claim 13, wherein the line sensor included in the reading means has a plurality of element arrays having different wavelength components disposed separately in the secondary scanning direction,

an interline correction portion is provided for correcting a phase shift among image data of the plural wavelength components due to a misregistration among the plural element arrays, and

the density correction portion performs correction increasing a density of image data of the wavelength component to be processed by the interpolation process when the interline correction portion performs the correction.

18. The color image processing apparatus according to claim 13, wherein the density correction portion performs correction switching a first density correction quantity in the case where the fine line decision portion decides that the present pixel is on a fine line for each of image data

of all wavelength components, and a second density
correction quantity in the case where the fine line
decision portion decides that the present pixel is on a
fine line only for a part of the wavelength components, and

5   the second density correction quantity is set to a value
less than the first density correction quantity.

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